

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 10 SEP 2004

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Applicant's or agent's file reference Cal 85914	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/02305	International filing date (day/month/year) 06.03.2003	Priority date (day/month/year) 08.03.2002
International Patent Classification (IPC) or both national classification and IPC E05F15/08		
Applicant CAMPISA S.R.L.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.  
  
☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 7 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  29.09.2003	Date of completion of this report  13.09.2004
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo.nl Fax: +31 70 340 - 3016	Authorized Officer  Guillaume, G  Telephone No. +31 70 340-2696



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP 03/02305

**4. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-23 as originally filed

**Claims, Numbers**

1-15 received on 10.05.2004 with letter of 07.05.2004

**Drawings, Sheets**

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
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International application No. PCT/EP 03/02305

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	1-15
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following document:

D1: US-A-4 102 382 (VESBACH EDWIN G) 25 July 1978 (1978-07-25)

2. Document D1, which is considered to represent the most relevant state of the art, discloses (cf. column 3, line 24 - column 5, line 4; column 4, lines 28 - 52; figures 1,2) a sectional security door with a hydraulic lifting device and having the features as defined by the preamble of independent claim 1; see especially:

- the device is conceived as a lifting group unit comprising the hydraulic cylinder (31), lifting cables (57,65) with central cable stops (clamps (58,41) provided on the unit) and return pulleys (49,55) such that a right or left installation of the unit is possible.

The subject-matter of Claim 1 differs from what is disclosed in D1 in the features as defined by the characterizing part of claim 1.

The combination of features of claim 1 discloses a hydraulic lifting sectional security door of the D1 type, whereby the said lifting group is inserted in a profiled container closed with position stops with pin to which a respective pulley is journaled and whereby the sheet bent shaped position stops are invertible and are provided with a series of bores allowing a distance adjustment between the said stops such that a simple and adaptive mounting system is provided.

Since the subject matter of said claim 1 is neither known from, nor rendered obvious by, the available prior art, it satisfies the criteria set forth in Article 33(2) and 33(3) PCT.

2.3 Claims 2-15 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

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ART 34 ADPT

## CLAIMS

1. Improved hydraulic lifting sectional security door,  
capable of being installed at an entry space to a room,  
comprising a pair of profiles (PRF), associated with  
5 respective rails (RT), arranged near to each frame  
(STP) of the entry space, a single panel or a series of  
panels (PNL) articulated together and a device or group  
(GP) for lifting the panels (PNL), which includes a  
hydraulic cylinder (CI), to which lifting cables (FA1,  
10 FA2) are fixed, characterised in that said lifting  
cables (FA1, FA2) start from stops (FE1, FE2) foreseen  
in a substantially central position with respect to  
said cylinder (CI) and go, on the way out, towards  
return pulleys (PU1, PU2) in a balanced manner, such  
15 that said container (CAS) can be installed with the  
hydraulic cylinder (CI) in a right or left position  
with respect to the entry space, according to the  
user's desires and requirements.

2. Improved hydraulic lifting sectional security door  
20 according to claim 1, characterised in that said  
lifting device or group (GP) is inserted inside a  
motorisation container (CAS), comprising a shaped  
profile (CA) closed at the side by position stops (TE1,  
TE2) fixed to said container (CAS), which are  
25 invertible and are formed from a suitably bent and  
shaped sheet with a series of bores.

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3. Improved hydraulic lifting sectional security door according to claim 2, characterised in that each position stop (TE1, TE2) has at least one pin (PER), on which at least one of said return pulleys (PU1, PU2, 5 PU3) is journalled.

4. Improved hydraulic lifting sectional security door according to claim 2, characterised in that said container (CAS) foresees at least one intermediate face (FA), on which at least one cylinder support (SU), at 10 least one cylinder block (BC), at least one tube support (ST), at least one microswitch support (SM) and at least one support (SB) for at least one microswitch-carrying bar (BPM) can be formed, said supports preferably being formed directly from the sheet 15 constituting the container (CAS) to avoid additional material costs.

5. Improved hydraulic lifting sectional security door according to claim 1, characterised in that said hydraulic cylinder (CI) is connected to a plurality of 20 lifting pulleys (PL1, PL2, PL3, PL4) and, in particular, has a stem (STE) equipped with at least one first axis (AS1), on which at least one first pair (PL1, PL2) of said lifting pulleys (PL1, PL2, PL3, PL4) rotates, and with at least one second axis (AS2), on 25 which at least one second pair (PL3, PL4) of said lifting pulleys (PL1, PL2, PL3, PL4) rotates, said

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stops or locks (FE1, FE2) used for the hooking of the lifting cables (FA1, FA2) being mounted on said first (AS1) or second (AS2) axis, for each side of the cylinder (CI).

5 6. Improved hydraulic lifting sectional security door according to claim 5, characterised in that said lifting cables (FA1, FA2) pass, alternatively, on the lifting pulleys (PL1, PL2, PL3, PL4) journaled on to said first (AS1) and second (AS2) axis, as tackle,  
10 before being sent to said return pulleys (PU1, PU2, PU3) , or else they go directly from said second axis (AS2) to said return pulleys (PU1, PU2, PU3) .

7. Improved hydraulic lifting sectional security door according to claim 6, characterised in that said  
15 lifting cables (FA1, FA2) start from stops (FE1, FE2) arranged in a position next to said cylinder (CI), and their exit in the direction of the return pulleys (PU1, PU2) takes place on the outer sides of said first pair (PL1, PL2) of lifting pulleys (PL1, PL2, PL3, PL4), so  
20 as to be able to rotate said container (CAS) and to take said cylinder (CI) and the exit of the hydraulic tube (TU) to the right or to the left of the entry space simply varying a first cable (FA1, FA2) leaving at a right angle downwards on a first return pulley  
25 (PU1, PU2) and taking a second cable (FA1, FA2), after having been deviated by 180° on a second return pulley

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ART 34 A/ESE

(PU2), to a third return pulley (PU3), which deviates it at a right angle downwards.

8. Improved hydraulic lifting sectional security door according to claim 2, characterised in that said  
5 motorisation container (CAS) can foresee a series of pre-holes (PFR), at least on the side opposite the one where said hydraulic cylinder (CI) is installed, for the exit of said lifting cables (FA1, FA2), in order to suitably displace at least one first position stop  
10 (TE2).

9. Improved hydraulic lifting sectional security door according to claim 8, characterised in that said container (CAS) foresees the installation of at least one portion of a further container extension (PRO),  
15 which allows it to be made adaptable in door width, for width measurements (LR) which can be adjusted, said extension (PRO) being equipped with a series of top bores and holes corresponding to the attachment holes of said first position stop (TE2) to the container  
20 (CAS).

10. Improved hydraulic lifting sectional security door according to claim 9, characterised in that at least one end of said extension (PRO) is equipped with attachment holes of said first position stop (TE2) to  
25 the container (CAS) and preferably at least one small profile (SPE), preferably angular-shaped, is placed



between said first position stop(TE2) and said extension (PRO) to compensate the heights, said top bores, in a preferred version, being foreseen for the application of said first mirror-like position stop  
5 (TE2), so as to be reversible.

11. Improved hydraulic lifting sectional security door according to claim 10, characterised in that said extension (PRO) is joined to said container (CAS) by means of at least one reinforcement bracket (SRI),  
10 which essentially keeps the open side of the container (CAS) and of the extension (PRO) joined, at the joining point.

12. Improved hydraulic lifting sectional security door according to claim 10, characterised in that,  
15 preferably at said bracket (SRI), at least one sliding block (PAF), preferably made from anti-friction material, is mounted, which limits the lowering of at least one of said lifting cables (FA1, FA2) in cases of maximum extension of the container (CAS) and extension  
20 (PRO) group.

13. Improved hydraulic lifting sectional security door according to claim 9, characterised in that said container (CAS) and said extension (PRO) are preferably equipped with at least one cover.

25 14. Improved hydraulic lifting sectional security door according to claim 1, characterised in that said

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lifting cables (FA1, FA2) can be adjusted through screw adjustment systems.

15. Improved hydraulic lifting sectional security door according to claim 14, characterised in that said  
5 lifting cables (FA1, FA2) are thrust below a base panel of the door, preferably in a suitable throat, and deviated up to a container (FG), in which they are fixed, said container being connected to a plate (PI), which in turn is connected to a biscuit element (BI)  
10 which, in the case of breakage of at least one cable (FA1, FA2), rotates and engages on the rail (RT), blocking the lowering of the door.

16. Improved hydraulic lifting sectional security door according to claim 15, characterised in that to said  
15 biscuit (BI) a device (DBF) is applied comprising a bearer plate (PI) and a container with a throat (FG), in which said lifting cables (FA1, FA2) are passed which, after having been wound around a preferably trapezoidal key (CH), is passed back inside said  
20 container (FG), so that it can spontaneously lock by throttling, through the action of the key (CH) inside said container (FG), said adjustment being realised by action on a suspension screw (VR) of said container (FG).

25 17. Improved hydraulic lifting sectional security door according to claim 1, characterised in that it is

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possible to carry out an emergency lifting manoeuvre of  
said door, in the case of a lack of electrical energy  
at the motor, by means of a manual pump, or through the  
use of an electric drill, powered by batteries or  
5 compressed air, the bit of which is actuated in  
engagement with the suitably arranged drive shaft,  
since the axis of the electric motor, which is opposite  
the side connected to a hydraulic pump or to a geared  
motor of an electrohydraulic power unit, is generally  
10 uncovered and is free for the connection of said drill.